

System for Delivering News

Invention

5 The invention is essentially a method of gathering live or delayed video broadcasts which utilizes a wearable computer and wireless communications link. Specifically, it relates to a method of obtaining, providing, and delivering news coverage using only a single person equipped with a video camera-equipped hands free wearable computer and wireless communications link.

Background of the Invention

10 The rapid growth of the Internet in recent years has caused media companies to jump on the bandwagon and claim a stake for themselves on the Internet. Evidence that supports the Internet's status as a mainstream medium for advertising, delivering news and weather, entertainment and even live and delayed video broadcasts can be found
15 nearly everywhere. Newspapers, television networks, and even radio stations have all created a web presence and use this as to broaden their exposure to the consumer of content. With the creation of Real Networks Real Player ® client and other video player clients, and significant advances in digital video capturing and transmission, it is now possible to record live coverage, digitize it, and put it on the web for selective or live
20 viewing. The problem remains however, in providing efficient, cost effective mobile gathering of video coverage. Currently, there are two typical methods of providing video coverage to the web. In one method, there are what are known as web cams which are fixed cameras that deliver a slightly delayed view of something to the web as a continuous feed. Viewers can tap into it at any time of day or night, as long as the

broadcast is still on. These cameras are usually either fixed or provide a rotating time changing perspective about their fixed position. These are fairly inexpensive to implement but are very limited in that they can not be used to follow something around because of their fixed nature. Another alternative is to physically send out a news crew to cover a location or perform an interview, then take the film coverage, digitize it, and upload it to a data server so that it can be accessed by viewers. This is expensive because of the crew and equipment involved and sometimes logistically impossible because of traffic and/or congestion or even the location of the event to be covered. The problem with these two solutions stems from the fact that coverage does not always occur at the same location. On a daily basis, and in fact several times a day, news crews are dispatched to conduct on the spot interviews and to provide coverage of traffic, accidents, and other unexpected events as they occur. These events may or may not permit a news crew to easily cover them depending upon traffic conditions and the actual location of the event to be covered. Furthermore, a mobile news crew is a significant capital investment for a television station so there are finite limits on the number of crews and supporting equipment available and subsequently on the number of events for which news coverage can be provided in a given day.

Thus, there exists a need for an integrated system which is capable of capturing and delivering live coverage of events or other activities which are typically covered by the news media, and delivering it in real or near real time or even on a demand basis to viewers on the Internet.

The wearable computer itself can be a computer of the type disclosed in U.S. Patents 5,305,244 and 5,844,824 assigned to Xybernaut Corporation of Fairfax, VA, and successfully commercialized under the trade name Mobile Assistant ® hereby incorporated by reference, or it could be a wearable or user-supported computer manufactured by another company. The computer will be worn on the body of the person recording the coverage. It will be comprised of a CPU, memory, storage, I/O, activation means, audio input and output, and other standard computer components. It will also have a display device such as a head mounted display with attached or integral microphone. In this manner, audio concurrent to video can be recorded. The microphone can also support command and control or even continuous speech recognition so the user can operate the computer in a substantially hands free manner. The computer will also have an attached video camera capable of recording live video. The camera may be attached to the head mounted display, worn elsewhere on the body of the operator or carried. Preferably, the camera will be attached so as to free the user's hands and will possess a gimbal or other device for maintaining a steady and level picture. Alternatively it will utilize picture stability enhancing hardware and/or software. Also, the display should display the same picture being recorded by the camera in at least one window on the display screen so that the operator can receive visual feedback of what is being recorded while he is recording. This is akin to looking through the view finder on a camcorder while recording except for the fact that the head mounted display does not occlude the wearer's field of vision so that he can still see where he is walking and going, but can selectively look at the screen of the display to ensure that he is recording the desired footage.

Summary of the Invention

It is therefore an object of this invention to provide a novel system for capturing live video.

Another object of this invention is to provide a system which allows a single person to conduct interviews, record live video, and to deliver the video to a remote location.

Yet another object of this invention is to provide a system which allows live or nearly live content to be delivered to viewers who are connected to the Internet.

An additional object of this invention is to provide a system which will facilitate gathering of news in areas where it is not physically feasible to insert entire news crew and satellite or antenna up-link truck.

These and additional objects of this invention are accomplished generally speaking by a method gathering, reporting, recording, and transmitting video of live events utilizing a wearable computer with integral video camera and a wireless data network.

Detailed Description of the Disclosure

The invention is at it essence a method of remotely acquiring and then delivering audio and video media content to viewers on the web. It allows a single person wearing a computer with integral camera and wireless modem, wireless LAN card, or other wireless transmission means to capture video and audio coverage which can be uploaded to a server and available for delayed and/or live download by those who are interested and have access to a computer connected to the Internet.

The system of the present invention will be best illustrated by example. In one application, a reporter goes to an event. For instance, it could be spring training camp for a baseball team. Wearing his computer he is able to interview ball players or merely watch their fielding or batting practice and record the interview with the camera attached to his wearable computer while maintaining his hands free to do other tasks. Using a communications means either integral to the computer, attached to a port on the computer or in communication with the computer, he can then transmit the video/audio stream using this communication means as long as he is within the physical influence of a wireless network. This information will then be fed to a server and available for live download, such as in a web cam embodiment, or available on a pull basis at the viewers convenience.

In another example, the system could be used to afford coverage of an event where it would otherwise be difficult to insert a news crew and truck such as the scene of an automobile accident or traffic jam. In crowded cities around the world, it is often difficult or even impossible to get a news crew to the scene of an accident or bottleneck because of the volume of traffic and automobiles in the surrounding area. In this embodiment the camera and computer can be mounted on a bicycle or motorized bike or worn by the operator of the bike, which could more easily navigate through stopped traffic. Once the operator arrives at the scene, or even as he approaches, he can begin to record live footage of the scene which can be relayed back to the central data server of the news station or organization sponsoring him. This will greatly reduce the time involved in getting news crew to the scene and will provide the ability to get into highly

congested areas without having to send out an up-link truck and news crew to record footage.

One of ordinary skill in the art can imagine various other exemplary uses for this method of capturing and delivering video and audio content which is based upon a

- 5 wearable computer platform which while similar in function do not depart in spirit or in scope from the present invention.